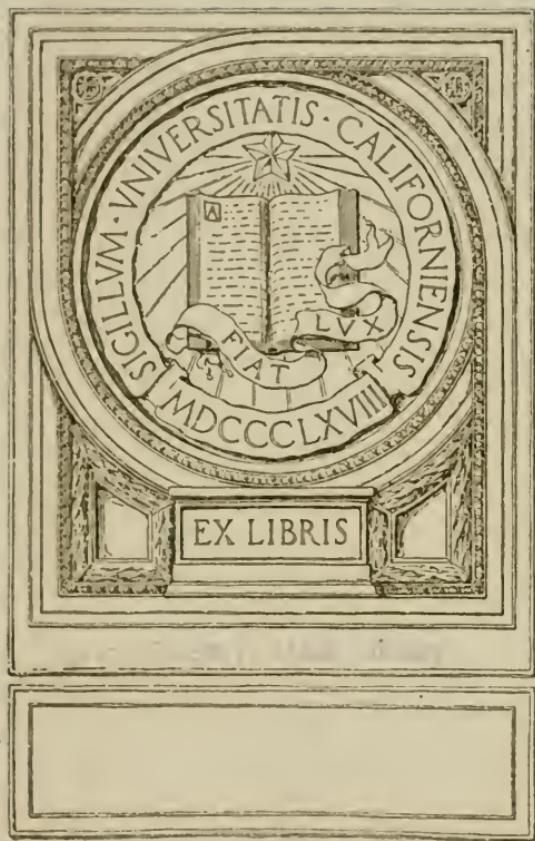


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REPORT
OF THE
National Parks and
National Forests Tour



MASSACHUSETTS FORESTRY ASSOCIATION
BOSTON, MASSACHUSETTS

1917

R E P O R T
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FOREWORD.

In presenting this report, the Association has gone afield from its usual local activities in Massachusetts. The Executive Committee feels that the growing interest of the Association in our National Parks and National Forests should be stimulated by an account of the tour made last summer to these great public domains. The first-hand knowledge gained of the National Parks and of the National Forests, and of the problems which have arisen during their recent development, are embodied in Mr. Reynolds' report of the tour. The original draft of his report including his observations on the tour, was submitted by him to the National Park Service, to the United States Forest Service, to many of the leading Landscape Architects and Foresters of the country, and to others who have given much thought to these matters. Certain revisions based on information received from these sources were made in the report, and this Committee now feels that the paper embodies as far as may be, a consensus of the best informed opinion on the matters discussed. While some slightly divergent views were expressed with regard to details, the essential points made by the report are generally regarded as sound.

The report discusses some of the most important problems involved in framing the policies of development in these great public domains, and we have secured permission from Stephen T. Mather, Director of the National Park Service to print a letter which he has written in answer to some of the suggestions and criticisms contained in the report. Frederick Law Olmstead, landscape architect, although unable to take part in the tour because engaged on war work under the Council of National Defense, took great interest in discussing the draft of the report, making a number of suggestions and in general concurs heartily in the conclusion expressed in the report. His reply was typical of many others who have been closely connected with this work for many years. We hope that the report may serve the purpose of arousing a greater public interest in both the National Parks and National Forests.

ARTHUR A. SHURTLEFF,

JOHN S. AMES,

Committee on Publication.

REPORT OF THE NATIONAL PARKS, AND NATIONAL FORESTS TOUR.

To the Members of the Massachusetts Forestry Association:

In November 1916 your Executive Committee recommended that the Association undertake a tour of the National Parks and National Forests, in the summer of 1917, believing that such a plan, successfully carried out, would increase the desire and the determination to conserve our resources. The tour was to be educational in character and was planned in co-operation with the National Park Service and the United States Forest Service. It was proposed thus, to gain, at first hand, information as to the needs and possibilities of these great areas of national domain. The plan was received with great interest by the members generally and by the first of February, a group numbering at least eighty seemed assured. The Declaration of War, however, made it impossible for some to go, but notwithstanding that event, there were thirty-two who were members of the party for longer or shorter periods.

Personnel of Party: Membership was not confined to the Association. From the first, it had been the intention to invite participation on the part of those who were interested in any phase of conservation. Eight states were represented as follows:

Massachusetts	18	West Virginia	2
Pennsylvania	4	Connecticut	1
New York	3	Maine	1
Ohio	2	Texas	1

28

Program Successfully Carried Out: The original program was carried out with but slight changes. In place of the visit to General Grant National Park, the party decided to take an extra day in Los Angeles and the side trip to Glacier Point in the Yosemite. For those who are visiting Yosemite Park for the first time, we strongly recommend entering the Park via Glacier Point, because from there one gets a panoramic view which gives a true conception of the grandeur of this wonderful valley, which can never be forgotten. At Paradise Valley on Mount Rainier, the automobile road was blocked by snow for the last mile or so, which caused some inconvenience, but everybody succeeded in reaching the valley, on

Photo by Mr. Fillebrown, Pawtucket, R. I.

EXPLORING NISQUALLY GLACIER — MOUNT RANIER NATIONAL PARK

Some members of party in Mountaineering Garb, July 23, 1917.



foot, horseback or by sleds. Snow also caused the party to enter the Yellowstone by way of Gardiner instead of driving from Cody over the Sylvan Pass as originally planned. This was a distinct gain because we left the Park by this route and the scenery along the Cody Road makes a stunning climax to the wonders of the Park itself. We were favored with good weather throughout the trip. There was an occasional shower, but not a single rainy day. There were a few afternoons which were uncomfortably warm aboard trains, but as a rule skies were fair and temperature equable even in southern California. Every member of the party approved of the itinerary selected and the success of the tour fully justified the action of the executive committee.

Distance Traveled—Facilities Provided: During the eight weeks we traveled in all about nine thousand miles, of which at least one thousand were by automobile. The railroads took exceptional care of us, often providing special equipment and sending special representatives with us. The Association is deeply grateful to these officials and to all others connected with transportation problems, for their unfailing courtesy and assistance.

Parks and Forests Visited: We shall not attempt to describe the glories of the Parks. They surpassed all expectations. Each in turn seemed more alluring, more wonderful than the rest and when at last we turned away from the rim of the "Titan of Chasms" the Grand Canyon homeward bound, everybody felt that it was indeed a fitting climax.

We had visited six of the great National Parks, Rocky Mountain, Yellowstone, Glacier, Rainier, Crater Lake, and Yosemite; the Grand Canyon, which still ranks only as a National Monument,* but which ought to be made a National Park, and eleven of the National Forests, Pike, Colorado, Shoshone, Chelan, Rainier, Oregon, Crater, Klamath, Sierra, Tusayan and Coconino, besides passing through several more on the trains.

Government Co-operation: It is difficult to sufficiently emphasize our sense of obligation to the officers of the National Park Service and the United States Forest Service. Their illustrated lectures and informal talks added immensely to the interest and enjoyment of the

* A National Monument is an area set aside by Presidential Proclamation for the purpose of preserving its historic or scientific interest. There are thirty-four National Monuments.

party. Everyone became familiar with the Park and Forest problems and came to appreciate the enormous value to the nation of these great reserves. Each member of the party was requested to report on some topic relating to the needs or management of the Parks and Forests, and many of the suggestions that will appear later in this report, had their origin in such sources.

ADDRESSES GIVEN ON TOUR.

WHAT ARE PARKS FOR?

L. Claude Way, Supervisor, Rocky Mountain National Park.

FUNCTIONS OF THE FOREST SERVICE.

H. N. Wheeler, Supervisor, Colorado National Forest.

ACTIVITIES ON THE PIKE NATIONAL FOREST. (While Ascending Pike's Peak.)

Wallace I. Hutchinson, Charge of Recreation District 2.

SHEEP GRAZING ON THE NATIONAL FORESTS.

Wallace I. Hutchinson, Charge of Recreation District 2.

NATURAL COLOR PHOTOGRAPHY IN THE NATIONAL PARKS. (Illustrated.)

H. O. Reik, Johns Hopkins University.

THE GEOLOGY OF GLACIER NATIONAL PARK.

Clinton L. Babcock, Director of the Party.

THE NATIONAL PARK SERVICE AND WHAT IT STANDS FOR.

Robert Sterling Yard, Chief of Educational Division, National Park Service.

WILD LIFE IN THE PARKS.

Vernon Bailey, Chief of Field Naturalists, United States Biological Survey.

OUR SOLUTION OF THE GRAZING PROBLEM.

E. H. McDaniels, Supervisor, Chelan National Forest.

THE GLACIER SYSTEM OF MOUNT RAINIER.

A. C. Curtis of Seattle.

LUMBERING AND FOREST TYPES IN RAINIER NATIONAL FOREST.

E. J. Fenby, Forest Examiner.

THE NATIONAL FORESTS IN OREGON. (Illustrated.)

A. G. Jackson, Forest Examiner, Charge of Education, District 6.

THE COLUMBIA HIGHWAY.

Samuel C. Lancaster, Engineer who constructed the highway.

EAGLE CREEK RECREATION CAMP ON THE OREGON NATIONAL FOREST.

T. H. Sherrard, Supervisor, Oregon National Forest.

FOREST FIRE FIGHTING ON THE NATIONAL FORESTS. (Dramatically illustrated by actual fires raging along the railroad track.)

R. F. Hammet, Forest Supervisor, Shasta National Forest.

THE REDWOODS OF THE COAST COUNTIES.

Walter Mulford, Director, School of Forestry, University of California.

THE FORESTS OF CALIFORNIA.

L. H. Whiteman, Charge of Information, District 5.

GAME PROTECTION. (Illustrated.)

Aldo Leopold, Forest Examiner, Charge of Recreation, Information and Game Protection.

INDIAN LIFE, HISTORY AND ART.

Mrs. Morgan, in charge of Indian Collection, Balboa Park, San Diego.

THE EXPERIMENT STATIONS OF THE FOREST SERVICE.

J. A. Mitchell, Forest Examiner.

PREHISTORIC ANIMALS FOUND IN THE ASPHALT PITS NEAR LOS ANGELES.

Frank S. Daggett, Director of the Museum of National History of Los Angeles.

Valuable Aid from Other Sources: We are under obligation also to many individuals and corporations along the route. Among these are the Portland Lumber Company, who showed us all the processes in the manufacture of lumber on a gigantic scale, while the Pelican Bay Lumber Company at Klamath Lake, placed a logging train at our disposal and carried us up the mountainside to the workings on the Klamath National Forest where mechanical "donkeys" dragged huge logs along as if they were withes and other mechanical beasts picked them up and loaded them on the cars. We also extend our thanks to the officers of the Theosophical Society which institution we visited at San Diego.

The Extension Tour: At the Grand Canyon, half of the group elected to take the Extension Tour. This meant a long automobile ride from the Canyon, through the Coconino National Forest and an interesting cattle country, along the edge of the Painted Desert, past the shining glory of Sunset Peak and so to Flagstaff. There, we were most courteously received at the Lowell Observatory and had the pleasure of a star-gazing through the large telescopes. We next visited the Forest Service Experiment Station and later were shown a moving picture record of the various phases of Forest Service work. At Santa Fe, Dr. Hewitt, Director of the School of American Research, generously served as interpreter of the historic and artistic objects of the city. Among the Pueblos and through the region of Cliff Dwellings there are dramatic themes from Pre-Columbian, through Span-



Courtesy Miller Photo Co.

MOUNT PITTS, UPPER KLAMATH LAKE, OREGON
View on Way to Klamath National Forest. Visited by Party.

ish, to Frontiersman's days. Here is local color in Indian life and legend with a natural setting unsurpassed for beauty and picturesqueness—a mecca for American artists. Mr. Phillips, Secretary of the Taos Society of Artists, arranged to have us visit his own studio and those of other artists.

CONSERVATIONAL IMPORTANCE OF THE NATIONAL FORESTS AND NATIONAL PARKS.

Distinction Between National Forests and National Parks: Many people do not recognize the distinction between the National Forests and the National Parks. While the principal National Parks are situated within or adjacent to National Forests, the parks were established for the purpose of protecting for all time the wonderful scenery contained therein and for the enjoyment and recreation of the people. The National Parks, which together cover an area about the size of Massachusetts, are under the management of the recently created National Park Service, a Bureau of the Department of the Interior. On the other hand, the National Forests, which in the aggregate contain an area of over 155,000,000 acres or about thirty-one times the size of Massachusetts, are in charge of the United States Forest Service, a Bureau of the Department of Agriculture. The chief purpose to be achieved in the National Forests is the economic development of their resources for the benefit of the people, along the lines consistent with the perpetuation of the Forests.

Organization of Forest Service: The management of the National Forest Domain is a titanic task. For administrative purposes, it is divided into 153 National Forests averaging a little over 1,000,000 acres each. These Forests are grouped into Forest Districts, of which there are seven. There is a District Forester in charge of each District, who is directly responsible to the Forester at the head of the Forest Service. Each National Forest has a supervisor who is under the District Forester, and the supervisor has charge of the forest assistants, forest examiners, rangers and others employed on his forest. A force of more than 3,000 regular employees is required to manage and protect these vast areas.

Courtesy U. S. Forest Service

SHEEP GRAZING, EDGE OF DEADMAN'S FLAT, COCONINO NATIONAL FOREST, ARIZONA

One of the Forests Visited by Party.



National Forest Policy.* This policy is clearly stated in the following extract from a letter of the Secretary of Agriculture to the Forester in 1905. "In the administration of the Forest Reserves, it must be clearly borne in mind that all the land is to be devoted to its most productive use for the permanent good of the whole people and not for the temporary benefit of individuals or companies. All the resources of the Forest Reserves are for use and this must be brought about in a thoroughly prompt and business-like manner, under such restrictions only as will insure the permanence of these resources.—You will see to it that the water, wood, and forage of the reserves are conserved and wisely used for the benefit of the homebuilder, first of all, upon whom depends the best permanent use of lands and resources alike. —In the management of each reserve, local questions will be decided upon local grounds; the dominant industry will be considered first, but with as little restriction to minor industries as may be possible. Sudden changes in industrial conditions will be avoided by gradual adjustment after due notice, and where conflicting interests must be reconciled, the questions will always be decided from the standpoint of the greatest good to the greatest number in the long run."

Activities of the Forest Service: That this policy has been adhered to is shown in some of the various uses to which the resources of the National Forests have been put. While one of the primary purposes of the creation of these forests is the preservation of timber, the wood, as well as other resources, is for use. Besides the large tracts of timber that are sold in the open market to the highest bidder, millions of feet are given away each year to the settlers, miners and other local residents, or for the nominal price of marking it.

* In 1876 the Department of Agriculture appointed a special agent to study forest conditions in the United States. Five years later a Division of Forestry was created in that Department, which became the Bureau of Forestry in 1901, and in 1905 its present name of Forest Service was adopted. In 1891 Congress authorized the President to set aside Forest Reserves to protect the timber on the public domain. These reserves were placed under the Department of the Interior, but in 1905 they were transferred to the Department of Agriculture. The term "Forest Reserves" was changed in 1907 to "National Forests" because the former term carried the sense of locking up the resources from use, which seemed undesirable. The principal National Forests are situated in the Rocky Mountain and Pacific Coast States and those recently acquired in the White and Southern Appalachian Mountains.

Lands that are best fitted for agriculture are withdrawn from the forests and opened to the homesteaders. There are some 21,000,000 acres privately held within the present boundaries of the National Forests including homesteads and privately owned timber land.

Much of the area within the National Forests is especially adapted to grazing and has always been used for this purpose. Therefore, that use of the land has been continued under the management of the Forest Service. During the fiscal year 1916, there were grazed upon the National Forests, about 14,000,000 head of sheep, goats, cattle and horses. The large herders sometimes bring their flocks of sheep long distances to get them to the ranges and on Lake Chelan in the Chelan National Forest which was visited on the tour this summer, a boat designed with three decks capable of carrying 2700 sheep was used to transport the sheep fifty miles from the lower to the upper end of the lake. A limit is always set as to the number of head of any kind of stock that may graze upon a given area.

In connection with the grazing industry on the National Forests, \$125,000 a year is set aside for the employment of hunters to kill predatory animals, which heretofore have destroyed annually stock worth millions of dollars. This money is expended by the Biological Survey in co-operation with the Forest Service and thousands of these animals are killed every year.

Since it is the object of the government to put every bit of land to its best use, where mineral deposits are found within the Forests, they are open to prospecting and development under the general mining laws exactly as on unreserved public land. In some of the forests there is hardly a hillside which does not show the signs of the prospector. More than 500 mineral claims were patented within the National Forests during the fiscal year 1917. The only restrictions on this work is that the claims must be bona fide, and not taken up for the purpose of acquiring valuable timber, or a town or power site or to secure a monopoly of the water supply on stock ranges.

Another valuable asset within the National Forests is water power, and there has been much controversy over its development. The Government will not permit the monopolization of power in any region, nor allow power

sites to be held without prompt development. Existing laws require that power permits be terminable at the discretion of the Secretary of Agriculture, though they usually run for terms of fifty years unless terminated earlier through the fault of the permittees, and may be renewed upon compliance with the regulations then existing. The Department of Agriculture has repeatedly recommended legislation which would enable the Secretary of Agriculture to issue permits for a term, not exceeding fifty years, revocable only by court action based upon violation of its provisions, just as in the case of ordinary contracts. However, such legislation has never been enacted because of the objection of certain water power interests desiring to obtain title to water power sites in fee simple and without public control. It is estimated that over 12,000,000 horsepower can be developed by the waters of the National Forests.

Irrigation in the western states has created another important use for the waters on the National Forests. Millions of acres which were once classed as desert are now irrigated and covered with the most productive farms and orchards.

Twelve hundred cities and towns, among them some of the largest cities of the west, receive their domestic water supply from the pure mountain streams found in the National Forests. No grazing, camping or other means of pollution are allowed on the watersheds which supply the drinking water for these municipalities.

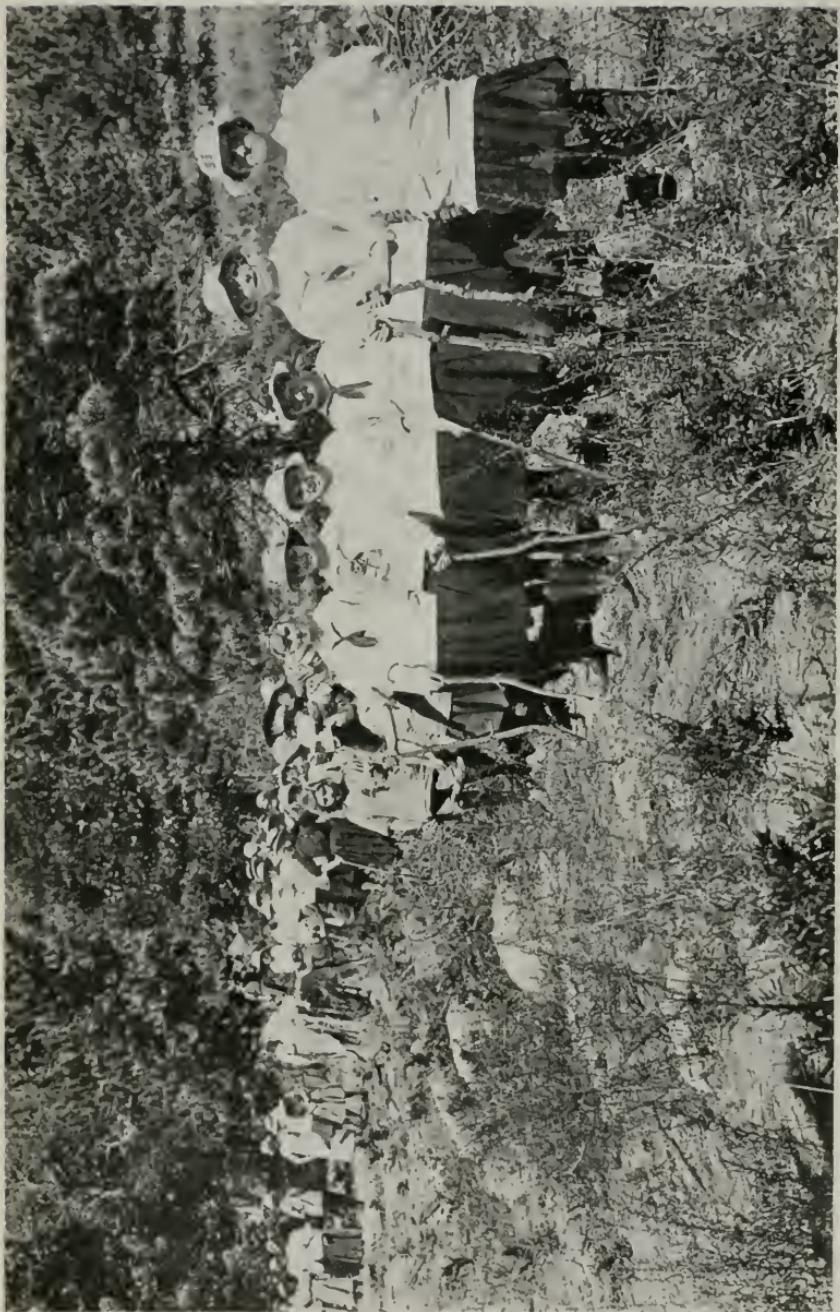
The chief work of the Forest Service at present is fire protection and this necessitates the establishment of lookout stations on certain high points, the building of roads, trails, fire and telephone lines. Twenty-five hundred miles of road have been built, 22,000 miles of trails, 20,000 miles of telephone lines and 1100 miles of fire breaks. In the west, lightning starts more forest fires than any other agency, though the careless traveler is a close second. A forest fire has been known to travel fifty miles an hour and to leap water surfaces, half a mile in width.

Recreation on the National Forests: Apart from all the commercial projects in the National Forests, their use for recreation is destined to become one of enormous value to the nation. It is estimated that 3,000,000 persons visit the forests yearly, and it would be difficult to find a freer or more healthful place in which to spend a

Courtesy U. S. Forest Service.

RECREATION IN A NATIONAL FOREST.

Girl hikers from the Los Angeles Municipal Camp in the Angeles National Forest, San Bernardino Mountains 75 miles from the city. City provides and furnishes cottages, dining quarters, swimming pool, tennis courts and the like. The camper works about camp one hour each day, furnishes his bedding and pays \$5.75 for a six-day outing or \$8.50 for a thirteen-day outing including transportation, housing and food. Provision is made for men, boys, girls and women, and families in separate outings.



vacation or to secure a rest than the depths of a National Forest. The Forest Service is building roads and trails, providing camp sites, giving valuable information in map and pamphlet form to the average citizen to attract him to these health-giving playgrounds, a paradise for the tramp, hunter, fisherman, camper and nature lover. Permanent camp and cottage sites can be rented on reasonable terms and the city of Los Angeles maintains a municipal camp in the Angeles National Forest where its citizens may have a thirteen-day vacation for the total cost of \$8.50 including transportation to and from the camp. There is no doubt that this plan will soon be adopted by other cities. In this short review of the activities carried on in the National Forests, it is clear that while recreation is a natural and valuable feature of the Forests, it is by no means a controlling factor in their development as a whole. It may be considered a by-product of the other industries, because the roads and trails which are built for utilitarian purposes make accessible many of the areas most attractive for recreation. In some instances roads and trails have been built in the Forests primarily for recreation and to open up scenic areas. The fact that many of these areas are left in their virgin state constitutes their chief attraction. With the exception of certain delimited areas in the National Forests, the protection of which is desirable because they happen to be more valuable for their esthetic or recreational features than for other purposes, such uses of the Forests should normally be incidental and subordinate to larger economic uses.

Finances: For the fiscal year 1917 an appropriation of slightly over \$5,600,000 was made for the work of the Forest Service, of which a little more than \$4,000,000 represents the cost of operation of the National Forests. The total revenue received for that year from the uses of the Forests was nearly \$3,500,000. This shows that the National Forests are almost self-supporting. Although some of the Forests which are maintained primarily for watershed protection and are of low value from the standpoint of the marketable resources which they contain will probably never become self-supporting as individual units, the time is sure to come when the National Forest area as a whole will produce a net revenue to the Government. None of these public lands pay taxes, but twenty-five per cent. of the gross receipts go to school and road funds of the counties in which the Forests are located, ten per

cent. more must be used by the Government in the states where the Forests are situated, for roads or trails in or near the National Forests, and besides \$10,000,000 to be spent at the rate of \$1,000,000 a year for ten years has been appropriated by Congress for the building of roads within and adjacent to National Forests.

Creation of National Parks: Our National Parks represent some of the most beautiful and wonderful scenery in the world. So marvelous were the stories told by the discoverers about the area now included in Yellowstone National Park, that special commissions of reliable men were appointed to investigate the truthfulness of such stories. When the facts were established, this area was in 1872 set aside as the first National Park of any considerable size although the Hot Springs of Arkansas had been made a reservation forty years before. The creation of National Parks by Congress has been very spasmodic. After the Yellowstone country was made a park, nothing was done until 1899 when the Casa Grande Ruin was declared a National Park and in the following year three more parks were created, among them the Yosemite. From 1902 to 1906 inclusive, five more were established, among which were Crater Lake and Mesa Verde. Glacier National Park came in, in 1910 and the Rocky Mountain, the Hawaii, the Lassen Volcanic, and Mount McKinley National Parks have been created in the past three years. In all, we have seventeen National Parks of which only eleven can be considered truly worthy of the name National Park.

Considerable money has been spent in some of the parks, particularly the Yellowstone, in the construction of roads. These roads were originally built for the use of horse-drawn vehicles, but with the introduction of the automobile, it has been found necessary to widen and re-locate some of them. No one could foresee the rapid change in the methods of transportation in the past quarter century, but the changes in road construction to meet new conditions, necessarily require a large outlay of capital which comprehensive plans in the beginning might have reduced, if not eliminated. Congress was slow to furnish capital for making the parks accessible, until the demand had come, yet the demand was dependent upon a wider knowledge of the parks. In several of the parks, we are at the beginning of their development and the need for a constructive policy is sorely felt. Particu-

larly, is this true in the preparation of comprehensive general plans, the dominant purpose of which shall be the preservation and perpetuation of the original landscape.

The National Park Service is to be congratulated on the progress it has made in the short period it has been in existence. It is now possible to visit most of the parks with comfort, and different grades of accommodations are to be had to meet the requirements of the visitor's pocket-book. Luxurious hotels are available in practically all of the principal parks, and clean and commodious tents are found in the camps, where camp outfits have been installed. Roads, trails and other accommodations for the convenience of visitors are being built as fast as appropriations will permit.

CRITICISMS AND SUGGESTIONS.

The Massachusetts Forestry Association arranged this tour only because it felt that the people in the eastern states were not as familiar with the Forests and Parks as they should be, nor were they sufficiently interested in the policies affecting them, and that by this means the knowledge of our public domains would be increased. What we have to say by way of suggestion or criticism is based upon our observations and concerns policies which in some instances are beyond the control of the Bureaus of Government in charge. We believe, however, that frank and constructive criticism will be welcomed and that wider public discussion of these matters of policy will result in good, for the proper development of these important areas.

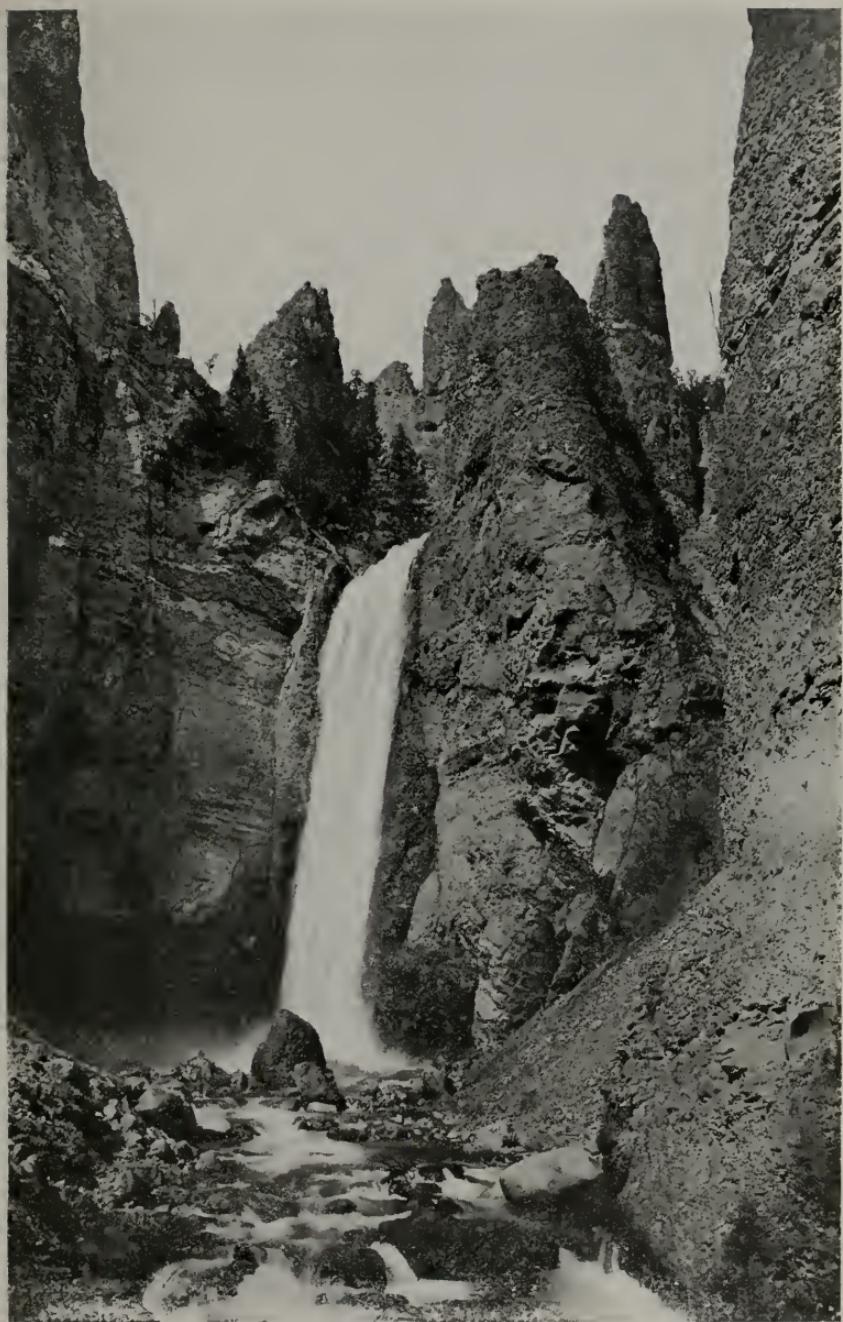
Under the present system of granting concessions in the parks for the operation of hotels, camps, and transportation companies, the National Park Service is encouraging the investment of considerable capital in buildings and equipment by private individuals or corporations. It seems to be the policy to put all of the concessions in each park under one management, which would tend to eliminate the old system of competition. In some of the parks under the system of monopoly, it is costing the tourists more than it did under the old system for the same general service. Although it is claimed that the service is improved, it would seem that with a

monopoly, the concessioner could generally afford to re-
due the cost to the tourist, if those who formerly gave
such service made profits on a competitive basis. Of
course, this is a year of abnormally high prices for sup-
plies and the Park Service will doubtless protect the pub-
lic interest in this matter when it has had time to solve
the many more immediate problems that confront it. It
is too, an open question whether competition or regulated
monopoly will give the better service to the people in the
long run and that is the first and last thing to be consid-
ered. One danger of any form of monopoly under our
government is the difficulty in dislodging an undesirable
system once established with sufficient political backing.
For this reason it would seem advisable for the govern-
ment to own, not merely control, all permanent struc-
tures placed within the parks and particularly to deter-
mine the design and quality of construction of all such
buildings as large hotels.

It does not seem practicable at this time, however,
for the Government to take over the operation of hotels,
camps and transportation facilities, as some would de-
sire.

Comprehensive Plans a Necessity: In this connection there is one great need which demands immediate attention, namely: the preparation and adoption of general plans for all of the Parks. Under the present demand for ready accommodations some structures must be located and roads built without reference to any general and well studied plan for further development. This is a haphazard policy which can only result in a tremendous waste of money in reconstruction as the demands for more accommodations increase. Each change of administration will bring new notions as to the requirements of the Parks and before the ideas of one administration can be carried out, another will be ushered in. The product of all these partly executed ideas is pretty certain to be found unsatisfactory when it is too late to remedy the condition at reasonable expense.

The dominant purpose of these plans should be the preservation and perpetuation of the original landscape and the introduction of facilities for making that landscape reasonably accessible to the public with the least possible impairment of the natural qualities of the landscape itself. The best talent that the country can afford should be employed in their preparation. It should not



Courtesy National Park Service.

TOWER FALLS—YELLOWSTONE PARK.

The Party spent six days among the myriad wonders of this largest of our National Parks.

be the work of any one man, but of a group of men, whose professional training and soundness of judgment clearly qualifies them for such an important task. We hope that Congress will soon see the need of making appropriations for this purpose. We are informed that the Park Service is endeavoring to secure the volunteer advice of competent professional men until a more substantial arrangement can be made.

Civil Service Desirable: The success of the United States Forest Service in the management of the National Forests is due to the fact that men trained in the profession of forestry and protected by the Civil Service have had them in charge. While no corresponding body of men exists with a training precisely fitting them for handling the special and peculiarly difficult technical problems of the National Parks, yet men are to be had who possess some of the most important elements of such training, and it is a very grave mistake not to utilize them. Men technically trained in the design, development and management of municipal parks and park systems, and other problems involving the control of landscape in a large way, as the right sort of landscape architects, foresters, engineers and park superintendents, if brought together in dealing with the National Park problems under a wise control will be far better fitted to develop the special technical efficiency required for the proper handling of the Parks than men of equal personal ability who lack the technical backgrounds which these men possess. Although the Director and some of the other officers of the Park Service have Civil Service rating it should apply to all regular employees of the Service to protect them from "political expediency."

Commercializing the National Parks: One thing which is now permissible in some of the parks and which is inconsistent with the purposes for which the parks were created, is the commercialization of certain of the resources. Mines still exist in Glacier National Park, and in others grazing interests are using every opportunity to gain a foothold. For instance, cattle were being allowed to graze in the Yosemite National Park for a time this summer under the disguise of a war measure. At the same time the cattlemen were reported to be renting or resting their own ranges.

There are many reasons why grazing, mining, lumbering or power development should not be allowed in

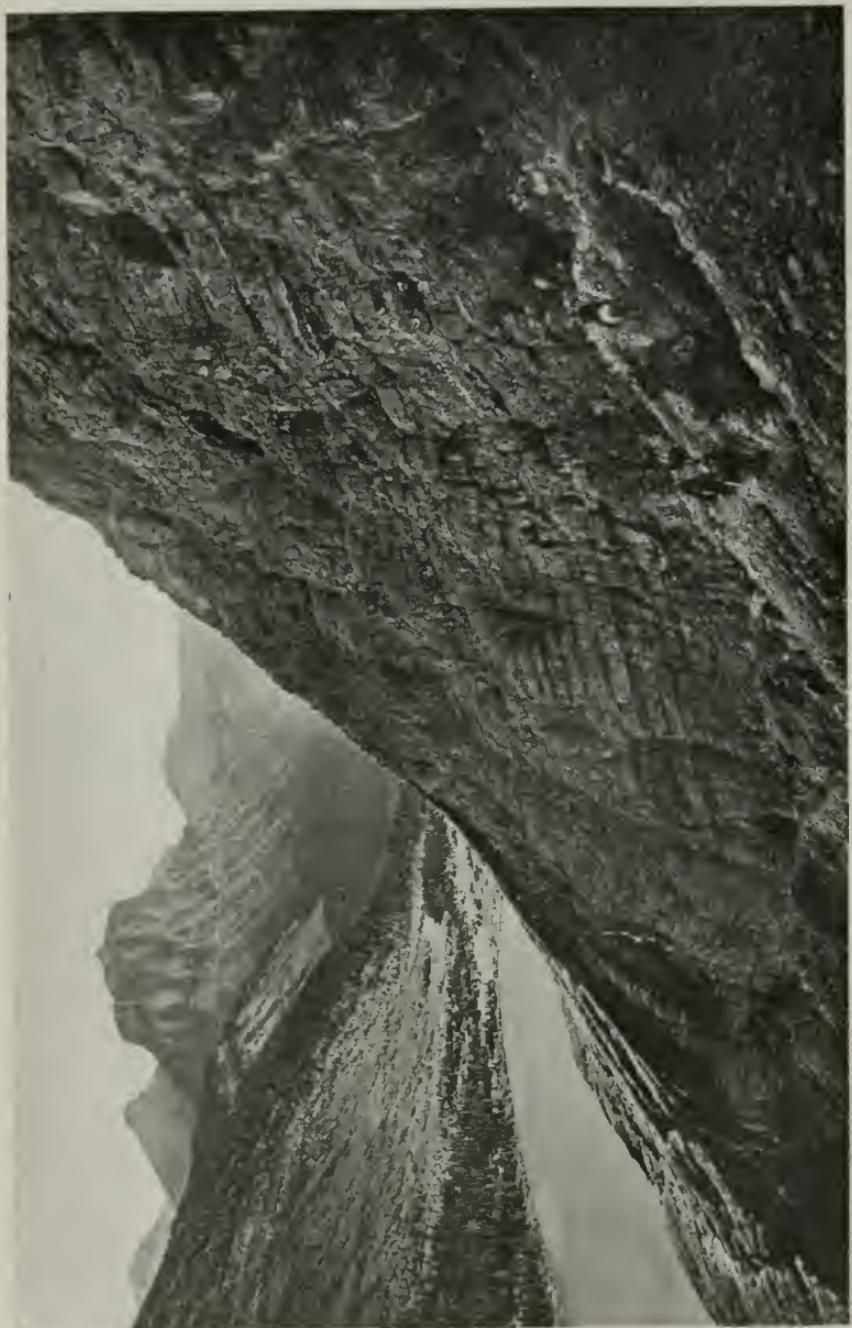
the National Parks. In the first place any commercial activity within the Parks other than that necessary for the comfort, convenience and enjoyment of the people is contrary to the spirit of the laws creating the parks. It has always been believed by the interested public, that when a National Park was created, commercial exploitation within that area would be prohibited. No city would allow the landscape of its parks to be marred by mine dumps, railroads, power lines and the like, required in commercial developments, nor will the people tolerate such objects in their National Parks. Water power cannot be developed without flooding valleys or by reducing the volume of water now flowing over the beautiful falls within the Parks, hence such development would nullify the purposes for which the Parks were created. Domestic animals may be objects of beauty or interest in a city park, where it is not possible to have wild animals except in enclosures, but in a National Park where wild animals roam at will, cattle and sheep have no interest compared to the deer, elk, moose, antelope and bears. In the Yellowstone, there is not enough forage to supply the needs of the wild animals and every park should be a similar sanctuary for these game animals. If the food which is necessary to support game animals is to be used for fattening domestic animals, obviously the former cannot exist. The damage done by domestic animals to the young growth of the forest is another reason why such use of the parks should be prohibited. In the National Parks, it is the esthetic and not the lumber value of the trees that counts most. Therefore, the cutting of trees in the Parks other than is necessary to make way for roads or to combat insects or plant diseases, or otherwise directly contribute to the maintenance of the landscape and its enjoyment by the public, should not be permitted or even contemplated.

The authority given in the interest of San Francisco to flood the beautiful Hetch Hetchy Valley in the Yosemite National Park for the development of the municipal water and power supply is a typical example of how the National Parks will be ruined by economic exploitation if definite policies are not soon adopted. Once that delightful valley is turned into an artificial lake and water from it is being used for drinking purposes the northern part of the Park will become, to a large degree, useless for recreation, since it is unlikely that the health authorities of the city will tolerate camping on these areas tributary to the storage basin.

Photo by Fred H. Kiser.

ON TRAIL OVER GUN-SIGHT PASS—GLACIER NATIONAL PARK.

One of the most delightful excursions in the Park is over this trail.

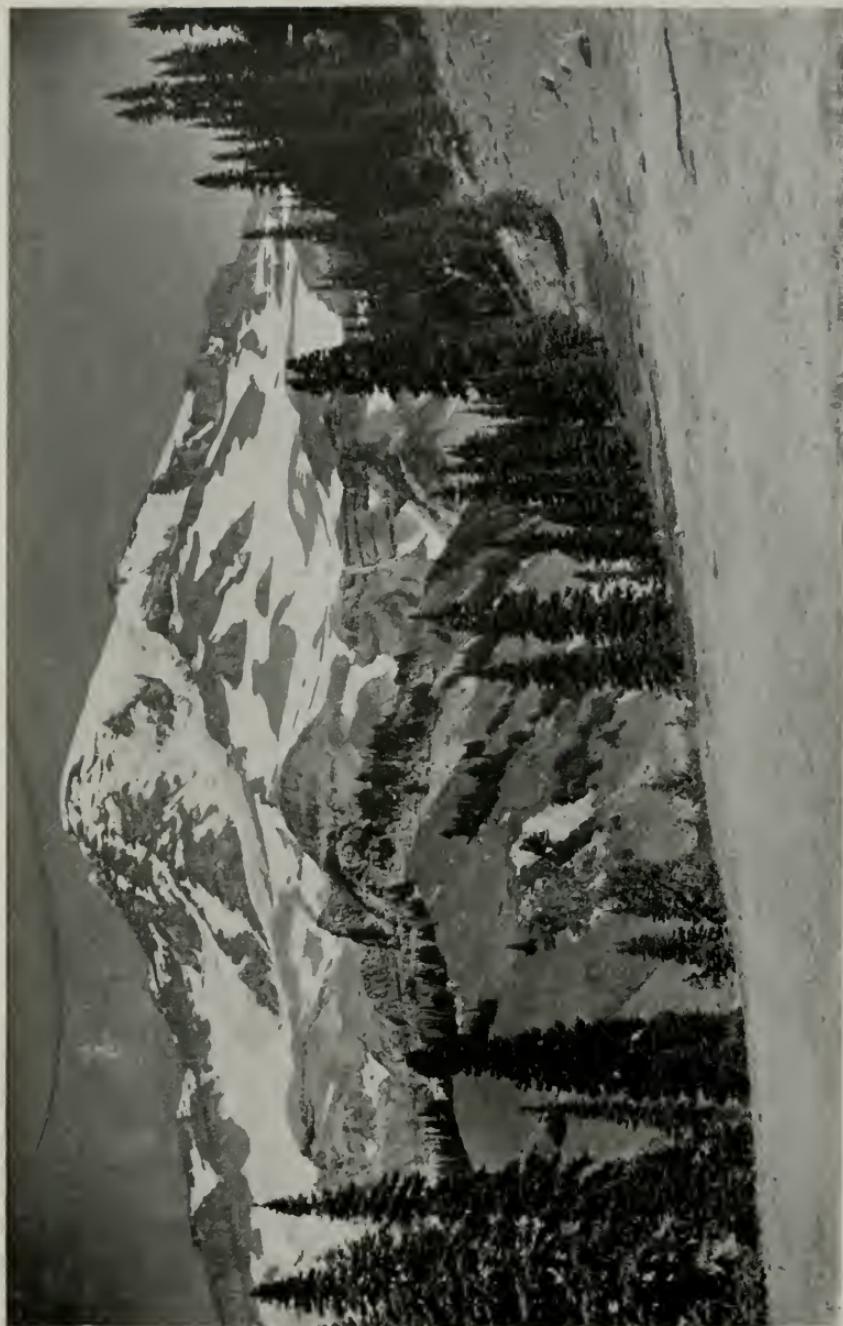


Private Claims Should be Eliminated: The matter of private ownership of lands within the National Parks is another big problem which should be solved. All such claims whether mining, homestead, or timber should eventually be extinguished though not without reasonable compensation and no private holdings should be allowed in the Parks proper. We realize that this will be an enormous undertaking and will require several decades to complete, but its desirability is unquestioned, except perhaps by those who are benefiting by the arrangement. So long as such holdings remain, there will be serious difficulty in developing the Parks, because the owners must be restrained from activities which would tend to mar the Parks or interfere with their recreation value.

Boundary Lines: Most of the Parks were formerly parts of the National Forests and the boundaries were established arbitrarily without recognition of the functional difference between the Parks and the Forests. Consequently some areas have been included within the Parks that will not be used for many years, if at all for park purposes, and in fact are better suited for National Forests.

Likewise, there are certain areas within the National Forests better fitted for recreation than economic uses and some of these by a readjustment of boundaries might better be included in the present National Parks. Therefore it would seem advisable to readjust the boundary lines of the Parks so as to avoid the unnecessary holding from commercial uses of the property which is best fitted for other than park purposes, and vice versa.

Danger of Cheapening the National Parks: There is now a feeling among some of the friends of the National Forests, that the recent unusual agitation for the creation of National Parks from scenic areas of the Forests threatens to disrupt the latter. Although it is hardly likely that the withdrawal of a few hundred thousand acres of scenic areas from the National Forest Domain would greatly affect its usefulness, yet from another standpoint there is just cause for alarm in this drive for more National Parks. Any locality which possesses an object that will attract tourists is benefited in proportion to the degree of attractiveness of such an object. The term "National Park" has come to mean an area of su-



Courtesy Atahel Curtis

MOUNT RAINIER ON THE INDIAN HENRY'S SIDE
Nearly three miles high, with twenty-eight glaciers flowing down its sides. A mat of wild flowers in the foreground.

perative charm. It is in a sense a "trademark" of value to any section which is classed as a National Park. Can the nation afford, then, to cheapen that "trademark" in the mind of the general public, by allowing it to be attached to areas that do not possess special features of beauty, wonder or scientific value, simply because commercial benefit will accrue to some local community? Some of our National Park enthusiasts would establish a bewildering multiplicity of small National Parks in sections possessing beauty to be sure, but which are better suited for State or local Parks. While we believe that most of the friends of the National Parks are opposed to a policy of creating indiscriminately a large number of small National Parks, there is a grave danger that organized political force may prevail in favor of applying the term "National Park" to areas which are of relatively inferior importance.

An area to be worthy of the name "National Park" should possess such unique, superlative or distinctively commanding natural features, as of itself to attract and hold national attention; it should be sufficiently extensive to meet present needs for recreation or be capable of enlargement by the addition of adjacent areas naturally suitable to adequately satisfy future demands for recreational facilities.*

National Park Commission: It would seem that this matter of establishing and protecting National Parks is of sufficient importance to the nation to call for a careful and systematic selection of these areas. Surely these tremendously valuable assets in which all the people are interested should attract the attention of Congress to such an extent as to justify the creation of a Congressional Committee on National Parks. Such a Committee would naturally seek from time to time the advice of men whose professional training would help it in determining its action on matters affecting National Park policies. Therefore, the appointment of a National Park Commission composed of capable, unbiased and non-political members, whose training specially fits them for such work and whose function it would be to determine what areas are worthy to be designated as National

* Certain areas, especially small areas, of National historic or scientific interest which do not measure up to the above requirements set forth for a National Park, although having some of the necessary qualities, may properly be made National Monuments. This is a happy classification of important areas which deserve to be preserved, yet do not qualify as National Park material.



By H. T. Cowling

CRATER LAKE—CRATER LAKE NATIONAL PARK.

View from near Crater Lake Lodge—1000 feet above the water. Wizard Island on extreme right. Visited by Party

Parks; to examine into and report upon the merits of proposed Parks; and to make recommendations to the Congressional Committee on National Parks seems highly desirable. The report of this Commission on a given area would serve as a guide to the public as well as to the Committee as to the true merits of each proposal. As it is, parks are sometimes created because of political pressure, before the general public is aware of the movement. This has resulted in the establishment of some Parks that do not measure up to the high standard that should be required of our National Park areas. This commission should also be advisory to the National Park Service and be clothed with the authority and responsibility of approving all plans for the development of the Parks and the design of all structures to be erected therein. Such a Commission would co-operate with the National Park Service and the Forest Service and would co-ordinate the work of these bureaus in relation to Park development and other recreation areas. Most of the areas proposed at present for National Parks lie either within National Forests or other public reserves, and should remain in such reserves until such time as our National Park Policy is more fully developed. In other words, we should avoid the haphazard establishment of National Parks until we know what areas really merit such consideration.

These suggestions and criticisms, we believe, represent fairly the views of the majority of the party which made the tour this summer. There were many minor suggestions for improvements in the service to tourists, some of which are given below and of which the authorities are fully cognizant. One feature which would make the Parks more enjoyable is better facilities for imparting information concerning the geography, topography, geology, flora and fauna of the Parks. Permanent exhibits in or near the camps and hotels would aid materially and a requirement that the guides should have a more accurate knowledge of these things would help to meet this need. In all of the parks visited, the mosquito nuisance was a great hindrance to the comfort and enjoyment of the tourist. Camp Curry in the Yosemite, however, was an exception. It was one place which was comparatively free from these insect pests, even though other sections of the Park nearby were infested by them. The management of the camp informed us that each year the surrounding country was examined and at a very nominal expense the stagnant pools were covered with



Courtesy National Park Service.

LOOKING INTO YOSEMITE VALLEY FROM INSPIRATION POINT.

oil. A small expenditure for this purpose in the vicinity of all the hotels and camps would add much to the comfort of the visitor. The temporary construction of some of the hotels where partitions of highly inflammable materials are used, make the fire risk very great and this should be remedied at an early date. Along many of the roads in the Parks, especially the Yellowstone, there are large quantities of fallen trees, and this dry material constitutes a serious fire risk, which should be removed, but in such work the utmost care and technical skill are required in order to avoid an artificial and denaturalized appearance.

Our thanks are due to each member of the party for their kind co-operation in this general study. The Association is particularly indebted to Dr. Clinton L. Babcock, Director of the Tour, who at that time represented the Bureau of University Travel, but who is now with the Travel Department of the American Express Company as assistant manager in charge of conducted tours. The success of the tour is largely due to his tact, courtesy, untiring energy and wide experience as a tourist travel director. We are also very grateful to the following public officials for their generous assistance in the preparation and execution of the plans for the tour. Henry S. Graves, U. S. Forester; Don Carlos Ellis, in charge of Educational Co-operation, Forest Service; Stephen T. Mather, Director of the National Park Service; Horace M. Albright, Assistant Director, and Robert Sterling Yard, Chief Educational Division National Park Service. Many of the individual members of the Association who are in touch with the National Park and National Forest problems, generously assisted in the preparation of this report by rendering helpful criticisms.

The question as to when we shall arrange another tour must depend upon the demand for such a tour and for the immediate future upon the exigencies created by the war. Since travel abroad, is practically impossible, and since some will desire to see our own country during this uncertain period, we see no reason why the Association should not foster such educational tours so long as they are consistent with public policy. It is the purpose of the Association to make this tour, with slight changes, from time to time, an annual affair, but whether the tour will be arranged for 1918 will depend largely upon conditions created by the war. It would be well for those who would like to go next summer, provided conditions



Courtesy National Park Service.

VERNAL FALLS—YOSEMITE NATIONAL PARK

Height 320 feet—twice the fall of Niagara and one of the most beautiful falls in the world.
A horizontal rainbow in a complete circle may be seen in the mist of the falls.

permit, to send us word at once. If numbers warrant the executive committee will announce the tour at an early date.

In conclusion, we wish to state that anyone who is interested in conservation and who wishes to see and learn about our great National Forests and National Parks, under the most favorable conditions should consider making this tour. The Association receives no profit in any way from this work and its sole object is to extend the knowledge of our resources and to further the public determination to conserve them.

One cannot visit these wonderful works of Nature without feeling the power of the Great Creator and his own insignificance. An intimate knowledge of the beautiful and picturesque in our National Parks and National Forests, inspires a pride in one's country and a greater love for it. These great institutions are destined to have a tremendous influence for good in our National life.

Respectfully submitted,

HARRIS A. REYNOLDS,

Secretary.

4 Joy St., Boston,
December 26, 1917.

LETTER FROM THE DIRECTOR OF THE NATIONAL
PARK SERVICE.

My dear Mr. Reynolds:

Your interesting and valuable report on the National Parks and National Forests Tour of the Massachusetts Forestry Association discloses to me still another body of earnest men and women who seek the highest good for the people of their land. I am impressed by the quality of public spirit which the report reveals, and I welcome the co-operation which I infer from it and from your letter to Mr. Yard which accompanied it.

The report shows that the Association traveled with its eyes and mind open; its criticism is always constructive. Individuals and organizations such as this are the strength for the future of this land. I rejoice in your sincere interest in the great cause of the national parks.

Commenting upon the report in detail, let me give you the point of view of the National Park Service upon several questions discussed therein, and may I not also take this opportunity to invite your attention to several instances where I am able to correct your information?

The policy of the National Park Service governing the granting of concessions in the various national parks and national monuments has not been finally determined. The monopoly idea has never been given a thorough test, and even at the present time there is no monopoly of concessions in any National Park being operated under conditions which may even be regarded as ordinary or usual. A monopoly of all concessions has been granted to the Crater Lake Company, in Crater Lake National Park, but the concessioner has never been able to command sufficient capital to develop his enterprise properly. On the other hand, it is clear that if competition with this concessioner were permitted, its investment would be seriously impaired and it would not be possible for either competitor to conduct anything but a philanthropic institution. It would be out of the question for either of them to give proper service to the public and realize a profit upon their operations. It is true that privileges granted by the Department of the Interior in certain parks have been monopolistic in character, so far as they relate to certain types of public service. For instance, one concessioner controls the hotel system in Yellowstone National Park. This concessioner, however, is limited to the operation of the hotels, and has no control over the camping business or over public utilities in the park. Its investment approaches \$2,000,000. Obviously, the granting of a concession to operate a system of hotels in competition with the existing system would involve action amounting to almost the confiscation of property. Again, in several parks

one concessioner controls the transportation lines. The same concessioner, however, does not operate in more than one park. In almost every instance the institution of competition between transportation companies would seriously impair investments and interfere with the rendition of proper service to the public.

It appears, therefore, that wherever a concession system involves large capital and a high quality of service, a strictly regulated monopoly system of managing public utilities in the National Parks is the only one thoroughly practicable. To the extent that I have indicated, this policy has proved to be best. I would reiterate, however, that it has not been utilized in the big parks, where tourist travel is heavy, to the extent of placing all concessions in a single park under the same management. It may develop, however, that it is necessary to carry the policy to this extent in certain parks in order to attract sufficient capital to develop concession systems which will give the only kind of service that will satisfy the modern public.

Government ownership and management of all National Park concessions would, of course, constitute the realization of an ideal policy, but this policy is not likely to be adopted by Congress, at least in the near future.

Comprehensive plans for architectural park development are sure to come, but not until Congress considers it wise to provide the expert service of architects and landscape engineers. There are also many difficulties, partly financial, which it may take some years to overcome. Public opinion, however, will eventually bring about this most desirable development. Meanwhile, we are finding it necessary to permit, in some cases, the erection of buildings and other structures which perhaps do not wholly harmonize with their environments in order to obtain proper accommodations for the ever-increasing throngs of visitors. We have established a practice which contemplates interference with the natural features of the park only when such action is absolutely unavoidable. It is necessary, of course, for us to permit the cutting of trees in order to erect buildings, but we do not allow trees near the roads and trails to be destroyed, nor do we allow the slashings to become fire hazards.

So far as employees of the new service are concerned, we have started well along the right road; even the director and assistant director are under the Civil Service, something that cannot be said of most Federal Bureau chiefs and their assistants. There is not an employee in the Washington office of the National Park Service who has not been appointed under the authority of the Civil Service Commission. Eventually, all field employees will be similarly protected. Many positions in the field service, including those of engineers, draftsmen, foremen, clerks, etcetera, are within the purview of the Civil Service rules and regulations, and no appointments are made at the present time in any branch of the service as a matter of political preferment.

It is absolutely impossible to cancel all mining claims in the National Parks. In several of the parks mining claims were initiated in the parks prior to the establishment of the parks themselves. We are fortunate in that none so far has interfered with the highest functions of any National Park. Of the parks visited

by the Massachusetts Forestry Association during the past summer, there is only one in which mining claims may now be located; and it is a fact that, at the present time, there are no mining claims in this park. I refer to Crater Lake National Park. There are no mining claims at all in Yellowstone, Yosemite, Sequoia, and General Grant National Parks, and there are only a few claims in Rocky Mountain, Glacier, and Mount Rainier National Parks which were initiated prior to the establishment of these parks. Whenever claims in any of these parks, except Crater Lake, are abandoned, they cannot be relocated.

We do not permit the cutting of timber in any National Park except where it is necessary to build a road or trail or to remove a fire hazard. Occasionally, of course, it is necessary to cut timber for use in the construction of buildings, but as I have already explained, trees cut for this purpose are carefully selected and are cut under restrictions which are designed to preserve the forests in their natural state. We are promoting, in some parks, exchanges with owners of timber land along the park roads, giving to them timber in other parts of the parks, or in co-operation with the Forest Service, arranging for the selection of timber in adjacent forests for timber and land along the scenic park roads. Thousands of acres of fine timber in Yosemite Park have already been saved through these exchanges.

The question of private holdings in the National Parks is an exceedingly difficult one to solve. It would cost enormous sums to purchase those already existing in the various parks, and Congress is not likely to add such purchases to the extraordinarily heavy financial burdens of the next several decades. The Department of the Interior endeavored for nearly ten years to secure money to buy the Giant Forest in Sequoia National Park, and finally when \$50,000 was appropriated for this purpose two years ago, we found that this sum would not be sufficient to consummate the transaction, and we would not possess this tract today had the National Geographic Society not made available the additional \$20,000 necessary to secure the property. The fact that private holdings are detrimental to the proper administration of the National Parks makes it all the more desirable that whatever new National Parks are still to be established should be created quickly. There are no private holdings in Yellowstone and Mount McKinley National Parks because of the prompt action of Congress in creating these parks before private interests were acquired. It is solely from this point of view that I regard it as desirable for Congress to immediately add the Kings and Kern River regions to the Sequoia National Park, and Jackson Lake and Teton Mountains to Yellowstone Park, and the Diamond Lake region and Mount Thielsen to Crater Lake National Park; to give the Grand Canyon a National Park status, and to dedicate other lands to National Park purposes which are now in National Forests.

Lands in the National Forests are subject to disposition under the public land laws, and they can only be saved for park purposes by actual inclusion in a National Park. If it should happen that after lands are placed in National Parks it is found that they are not desirable for park purposes, they can easily be eliminated, but so long as land that might be desirable for park purposes is retained in the National Forests it is in constant danger of invasion by private interests.

The suggestion that a disinterested commission should be appointed to pass on National Park projects is a most interesting one and one that is worthy of serious consideration. On the other hand, I see no reason why pending park projects should await the establishment of a commission of this character; it may be years before Congress acts favorably on the idea, and in the meantime the lands involved in new park projects will remain subject to acquisition by private parties and their use for National Park purposes will be in constant danger of impairment. Why should Congress not continue to establish National Parks and leave their boundaries to future adjustment, either upon recommendation of a disinterested commission or in some other manner prescribed by Congress itself? I would observe in this connection that there are probably not more than eight or ten areas in the public domain which should be set aside for park purposes; probably there are fewer areas. In any event, the total acreage of all of the land that will be dedicated for park purposes in the future will not be large and will constitute only an exceedingly small percentage of the lands now included in the National Forests.

With reference to certain specific criticisms relating to individual parks, let me consider the mosquito evil in Yosemite Park. We have exerted strenuous efforts to fight the mosquito pest in Yosemite Park over a period of years, and up to the present time we have not been able to find any means of eliminating this evil. To use oil, however, in fighting the mosquitoes would involve so much expense that we could not undertake its general use for this purpose. Unfortunately, the mosquito pest is one that we have to contend with in Glacier National Park and occasionally in the early part of the season it appears in other parks. We are, however, giving this problem careful attention, and are consulting with scientific bureaus of the Federal Government in an effort to devise some method for eliminating the mosquito pest. We hope to ultimately find some inexpensive method of combating the insects, and we can hardly hope for success until an inexpensive method is found.

Since I formed my connection with the administration of the National Parks, I have endeavored to find a solution of the problem presented by the fallen trees and brush along the roads in the Yellowstone National Park and in other members of the park system. I once took the trouble to have an estimate made of the cost of clearing up the Yellowstone roads, and was astounded when I read the figures that were submitted to me. They ran into the hundreds of thousands of dollars. You are aware, of course, that as new construction work advances in the parks, we take concurrent action in clearing away brush and debris.

Your suggestion with reference to the establishment of small museums in the parks is an excellent one. We have tried to secure funds for the establishment of museums in Yellowstone and Yosemite Parks, but have been unsuccessful. We expect, however, to establish a small museum of archaeology in Mesa Verde Park next year. In most of our larger parks we are engaged in making collections of natural objects for ultimate use in park museums. For instance, in Yosemite National Park we have a large collection of classified wild flowers, grasses, sedges, etcetera, and also the hides and heads of various park animals.

Our young bureau, now just organized and not yet supplied with appropriations sufficient to enable it to develop its policies very far, is keenly alive to the opportunities of this great trust. It is fortunate in possessing the faith and good will of a group of forceful public-spirited men in Congress, with whose help and counsel all things are possible—in time.

Cordially yours,

(Signed) STEPHEN T. MATHER,
Director.

Department of Interior,
National Park Service,
Washington, D. C.

November 22, 1917.

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